

ULSTER UNIVERSITY

Assignment Coursework
2021/22

Module Code: COM431 (18309)

Title: Individual Coursework – Web Application Development

Issue date 31 January 2022

Submission deadline: 12:00pm on 8 April 2022

Feedback provided within 20 working days from the submission deadline.

Word document to be submitted through Blackboard no later than 12:00
Noon on 8 April 2022

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[Dr Peter Nicholl p.nichol@ulster.ac.uk]

COM431 – Web Application Development

Individual Assignment Coursework for Lee McMaw

Dear **Lee**,

Please see below the Individual piece of work worth 100% that should be submitted via Blackboard before the deadline.

You should use the following specific details when developing your solution.

Database schema Comments you are asked to include: Terminology and Introduction Material

The comments you need to use will be found in the MS Teams under the **General > File > Class Material > Assessment** in the Excel document – **Comment Bank.xlsx**. You should select the information from the appropriate tabs and incorporate into your solution. Here is an example of the Spelling information tab:

	A
1	Spelling, Grammar and Writing Style
2	There are spelling mistakes that could be avoided by using a spell-checker (e.g. within WORD) or a dictionary. Professional presentation should aim to have minimal numbers of errors in this respect.
3	Sentence construction is faulty and the phrases or word groupings presented are not always formed into proper sentences.
4	Sentence length is a problem in that over-lengthy sentences are being used. Aim to have a maximum of 15-20 words per sentence.
5	Punctuation needs attention. The most common issues are: insufficient commas; failure to use the full stop; incorrect use of the apostrophe.
6	Mobile phone 'text-syndrome' is a problem. This means that the written work contains abbreviations (or lower case letters), which might be acceptable in a text messages but are not appropriate in formal reporting.
7	Grammatical errors are present within sentences and expressions.
8	There is a tendency to use inappropriate or incorrect words within sentences and phrases.
9	Paragraph structure is faulty, e.g. paragraphs are too short (staccato style) and only include 1-2 sentences; paragraphs are not properly divided with each one relating to a new theme; paragraphs are not properly formatted on the page; paragraphs are absent altogether.
10	Bullet points are used in excess, where there should be more prose within the written work submitted.
11	A first person style (i.e. using I, We You etc.) has been used, where the expectation for the submission is the use of a third person style. Professional and statutory bodies tend to expect first person styles in formal reports.
12	There is evidence that insufficient proof reading has taken place, due to the number of typographical errors that can be readily identified.
13	Slang expressions, foul/vulgar language or inappropriate expressions have been used.
14	Discussion aspects are difficult to follow, as they are illogical, poorly expressed, badly sequenced or otherwise weakly reasoned.
15	Unreasonable assumptions are being made in respect of the reader e.g. acronyms are being used without a full explanation on the first rendering; terminology is being introduced without definition, explanation or appropriate referencing to clarify same; excessive use
16	Sections feature trivial or insufficient treatment of the related subject-matter, e.g. coverage is too short or too shallow in nature.
17	Sections are over-lengthy/verbose and material needs to be edited to make it more succinct.
18	Word count recommendations have not been complied with i.e. the length of the document is significantly too high or significantly too low.
19	
20	
21	
22	

There are two videos that demonstrate how the legacy system functions and matches in with the Figures.

Comment Bank Application

You are tasked with developing a Comment Bank application that allows users to select from a list of pre-existing comments to send to students.

The Comment Bank application was a software application that was developed to provide students with automatic feedback. You are tasked with developing a similar application using the Laravel PHP framework. Figures 1-9 are screenshots of the older system.

For the database component of the application, you have been provided with your own unique database schema consisting of 2 tables (**Terminology and Introduction Material**) related to the Comment Bank application to create a Minimum Viable Product.

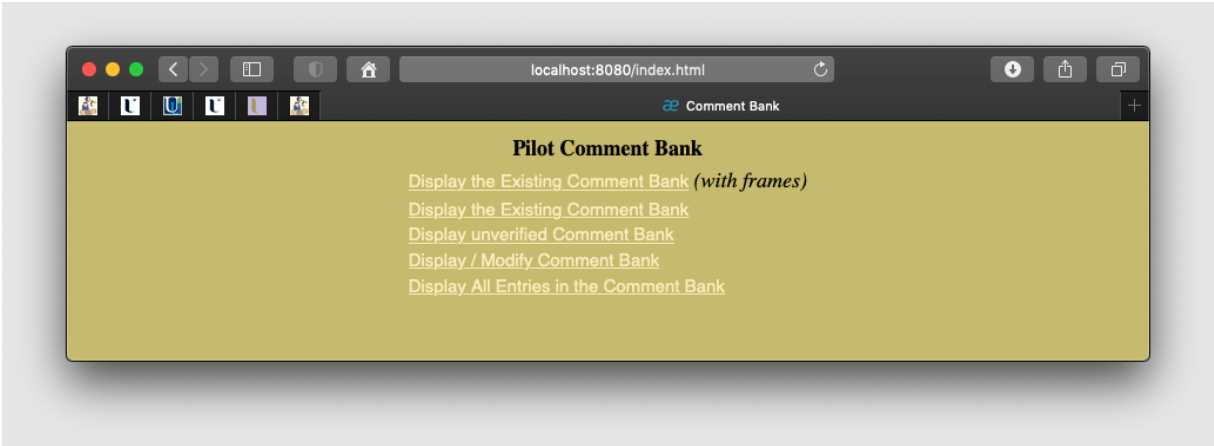


Figure 1: Comment Bank main menu

The system allowed staff marking student dissertations to select several options relating to system functionality listed in Figure 1.



Figure 2. List of comments that staff members can select.

Staff could select comments from any of the available tables that are populated using the backend database. (In your implementation/submission, you are only expected to make use of the two tables you were given - Terminology and Introduction Material.)

Appendix Comments (AP)

- ☐ An appendix should have been included. (A.Webb) AP01
- ☒ More use should have been made of the appendix, to de-clutter the document. (A.Webb) AP02
- ☐ The appendix should be split into a number of appendices to reflect the different aspects within its overall contents. (A.Webb) AP03
- ☒ The appendix is excessively large and requires rationalisation of the material included. (A.Webb) AP04
- ☐ Vital material, meritorious of inclusion in the main document, has been relegated to the appendix. (A.Webb) AP05

[Add a new Appendix Comment](#)

Spelling Mistakes Comments (SP)

- ☐ There are spelling mistakes that could be avoided by using a spell-checker (e.g. within WORD) or a dictionary. Professional presentation should aim to have minimal numbers of errors in this respect. (A.Webb) SP01
- ☒ Sentence construction is faulty and the phrases or word groupings presented are not always formed into proper sentences. (A.Webb) SP02
- ☐ Sentence length is a problem in that over-lengthy sentences are being used. Aim to have a maximum of 15-20 words per sentence. (A.Webb) SP03
- ☒ Punctuation needs attention. The most common issues are: insufficient commas; failure to use the full stop; incorrect use of the anastrophe. (A.Webb) SP04

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[Select Comments >>>](#) [Final Set of Comments for Stu](#)

Comments Selected:

More use should have been made of the appendix, to de-clutter the document.
 The appendix is excessively large and requires rationalisation of the material included.
 Sentence construction is faulty and the phrases or word groupings presented are not always formed into proper sentences.
 Punctuation needs attention. The most common issues are: insufficient commas; failure to use the full stop; incorrect use of the apostrophe.

Figure 3. Selected comments are then populated in a textbox.

The selected comments were populated in the text box and once finalised, could be outputted as shown in Figure 4.

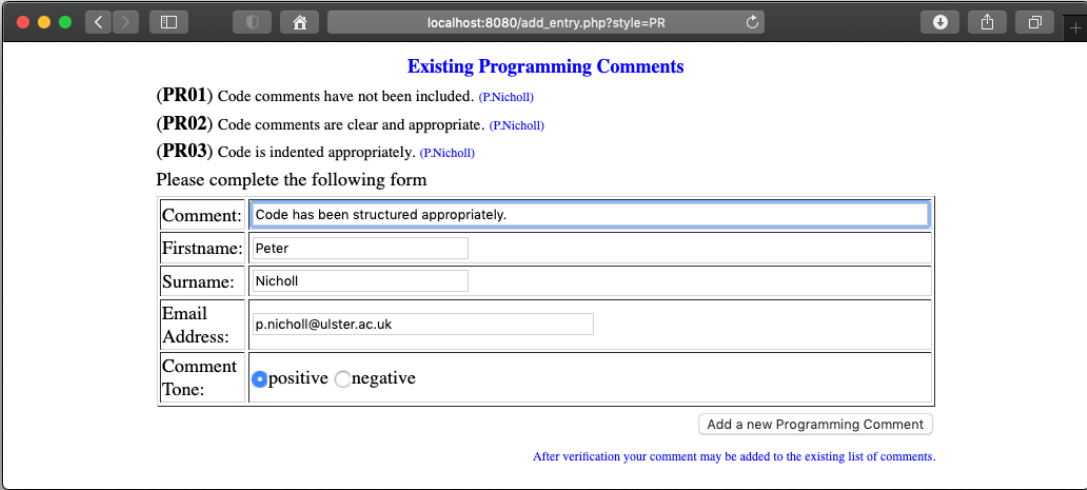
Feel free to Copy and Paste these comments into any other application:

Irrelevant or inappropriate material has been included in the introductory material.
 The introductory material includes excessive coverage and/or detail in relation to aspects of background material, thereby taking up valuable reporting space required for later sections of the document (i.e. `too much book` and not enough evidence of original work).
 Code comments have not been included.
 Code comments are clear and appropriate.

[BSc Computing Science Mark Sheet](#)

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Figure 4. Final set of comments outputted to staff.



Existing Programming Comments

(PR01) Code comments have not been included. (P.Nicholl)

(PR02) Code comments are clear and appropriate. (P.Nicholl)

(PR03) Code is indented appropriately. (P.Nicholl)

Please complete the following form

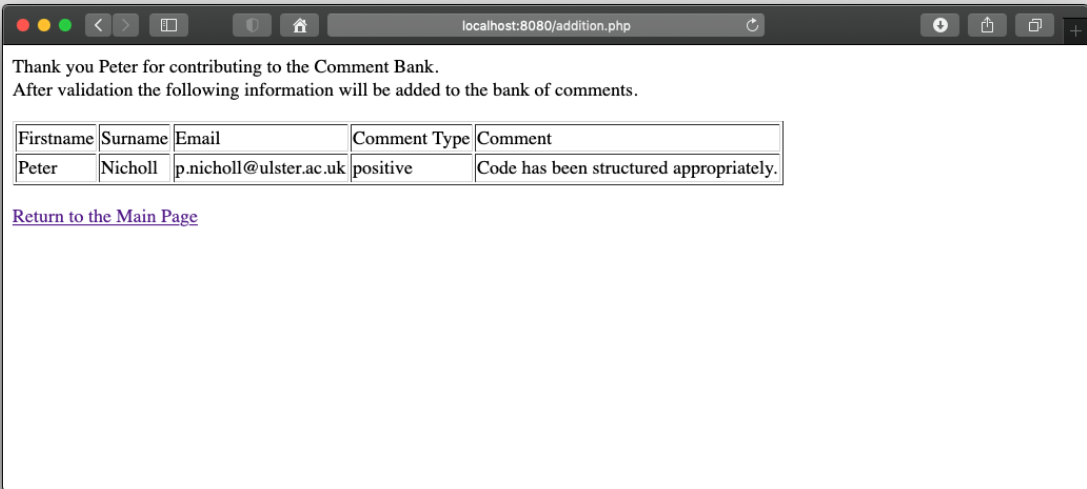
Comment:	Code has been structured appropriately.
Firstname:	Peter
Surname:	Nicholl
Email Address:	p.nicholl@ulster.ac.uk
Comment Tone:	<input checked="" type="radio"/> positive <input type="radio"/> negative

[Add a new Programming Comment](#)

After verification your comment may be added to the existing list of comments.

Figure 5. Editing existing comments.

Staff could also edit/update existing comments stored in the backend database. A confirmation page is presented to staff to show an entry has successfully been inserted/updated (Figure 6).



Thank you Peter for contributing to the Comment Bank.
After validation the following information will be added to the bank of comments.

Firstname	Surname	Email	Comment Type	Comment
Peter	Nicholl	p.nicholl@ulster.ac.uk	positive	Code has been structured appropriately.

[Return to the Main Page](#)

Figure 6. Message stating comment successfully inserted/updated.

Authentication functionality was implemented to allow a specific admin user to securely login to the Comment Bank application to review and add the comment to the bank.

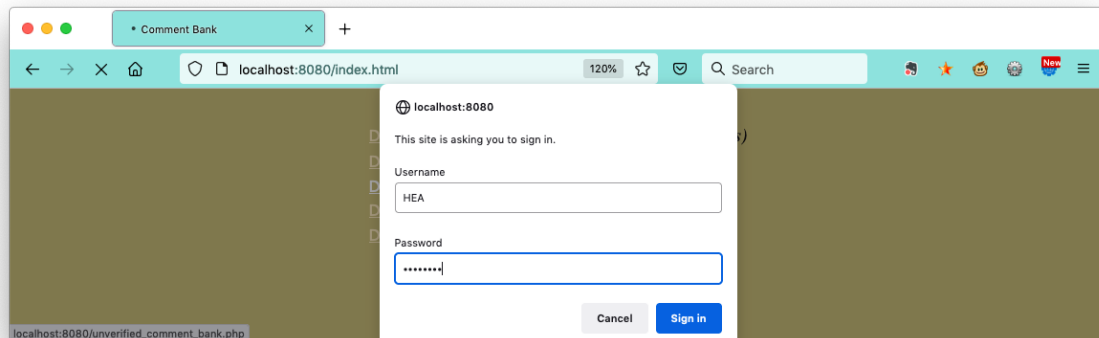


Figure 7. Admin authentication

Additional functionality was also developed that enabled the admin to review, modify and verify new comments before being added to the Comment Bank database (Figure 8).

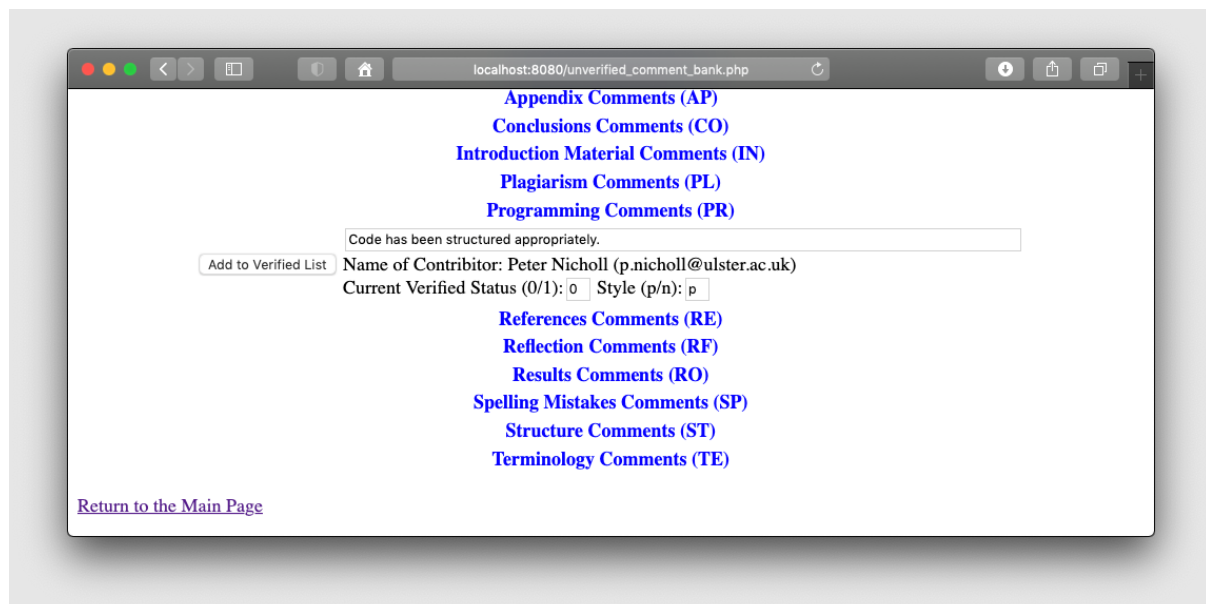


Figure 8. Comment verification functionality.

Once the comment was verified by the admin, the comment then appears Comment Bank table (Figure 9).

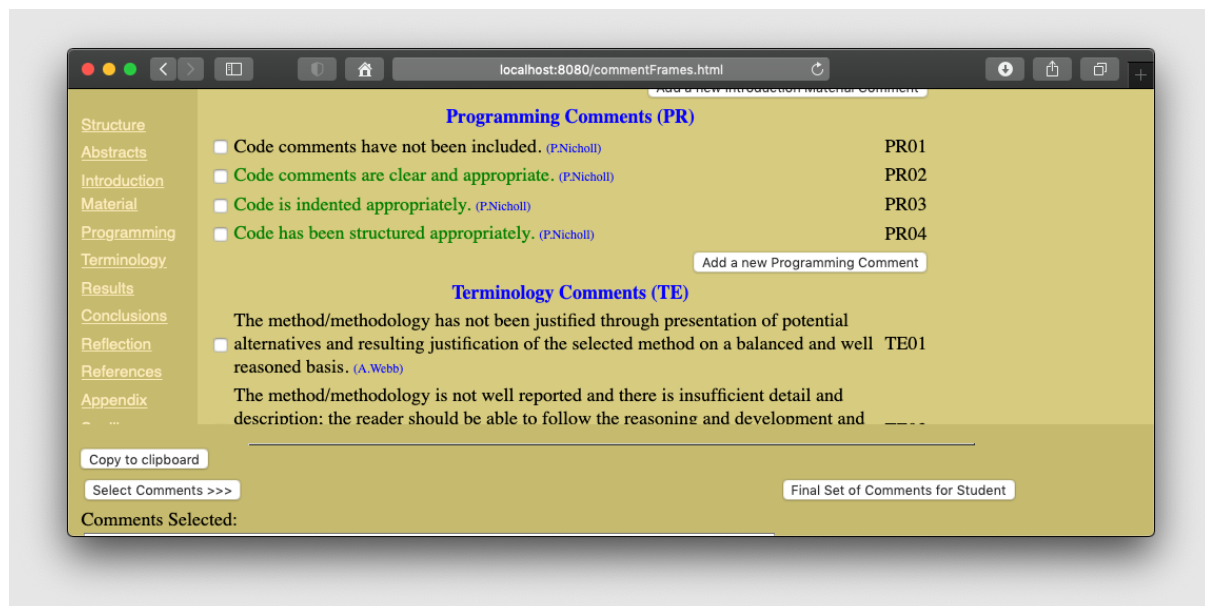


Figure 9. [Shows the new comments](#) rendered in Comment Bank table

The submitted application **must** include:

A persistence layer (database) with an attempt at a Model/View/Controller architecture with an appropriate UI.

The basic solution, to gain a 40-49% pass, would have a GUI to show the data (Read).

50%-59% in adding new data (Create) through an appropriate interface.

Greater credit will be obtained for including features to manage new comments submitted for use in the Comment Bank.

More advanced solutions would (Update) and (Delete) data for the two tables that were issued specifically to you.

The most advanced solutions would include the admin elements for validating new comments before allowing them to be viewed and used in the Comment Bank by others. This would also have a bespoke UI to control administering the new entries.

Laravel is the only server-based framework option allowed, but if a student wishes to write everything from scratch this is allowed, but marks are not awarded for writing lots of code or the amount of time taken to construct the submission. Credit is given for the features attempted and implemented using the most suitable approach.

You are to submit a Word document to Blackboard collating your assignment as well as a zipfile of the code. This Word document should include only the elements you created. A template will be available for the Word document.

There is no requirement to produce a working system. It is not required to run Docker and/or Laravel to complete this assignment, but you are required to include the code (HTML/CSS/JS, SQL and PHP) you wrote in creating the submission. It is possible to complete this assignment without having to run the code by following the examples from the notes/videos in the module.

Marking Criteria:

Attainment Criteria	Rudimentary System (Up to 40%)	GUI included for Creation of new comments (Up to 60%)	Admin features with GUI (Up to 100%)
Database	Poor use of tools to set up the database	Correct use of Tools to set up the database	Very good use of tools to set up the database
MVC	Poor/Incomplete implementation of the CRUD functionality	Complete implementation of the CRUD functionality but lacking elegance and finesse	Excellent implementation of the CRUD functionality including admin feature with an elegant and proficient coding style
GUI	Poor/Incomplete implementation of the UI interface	Competent UI, but lacking elegance and finesse	Excellent implementation of the UI